

# PATENT COOPERATION TREATY

To:

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# PCT

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing 30 November 2004 (30.11.2004)  
(day/month/year)

Applicant's or agent's file reference  
LW9103PC

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/KR 2004/002012

International filing date (day/month/year)  
11 August 2004 (11.08.2004)

Priority Date (day/month/year)  
31 December 2003 (31.12.2003)

International Patent Classification (IPC) or both national classification and IPC  
H01J 9/52

Applicant

SAMSUNG ELECTRONICS CO., LTD.

**1. This opinion contains indications relating to the following items:**

- ☒ Cont. No. I Basis of the opinion
- ☐ Cont. No. II Priority
- ☐ Cont. No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Cont. No. IV Lack of unity of invention
- ☒ Cont. No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Cont. No. VI Certain documents cited
- ☐ Cont. No. VII Certain defects in the international application
- ☐ Cont. No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

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**Continuation No. I**

**Basis of the opinion**

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed.

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**Continuation No. V**

**Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims 9-33	YES
	Claims 1-8	NO
Inventive step (IS)	Claims 9-33	YES
	Claims 1-8	NO
Industrial applicability (IA)	Claims 1-33	YES
	Claims ----	NO

**2. Citations and explanations:**

All of the cited documents disclose a method for recycling of mercury-containing lamps, by crushing the lamp and feeding fraction thereof containing the smallest constituents comprising mercury-containing phosphor to a furnace in which it is heated up and the resulting mercury vapour is fed, with addition of a gas, to a condenser in which the mercury is condensed.

The claimed temperature ranges can be drawn at least from documents D1 and D2.

Thus, claims 1-8 cannot be considered novel nor inventive over the prior art.

However, the claimed spiral condenser structure cannot be derived from the cited art, and thus, claims 9-33 can be considered novel and inventive.

Industrial applicability is given.

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